Circular economy & Materials

OUR ASPIRATION

To use resources as effectively as possible; demonstrated through assessment and understanding of clay bricks' role in a circular economy, supported by a robust methodology and evidenced through case studies.

KEY STATS

Where installed and maintained correctly, clay bricks can have a service life in excess of **150 years.**

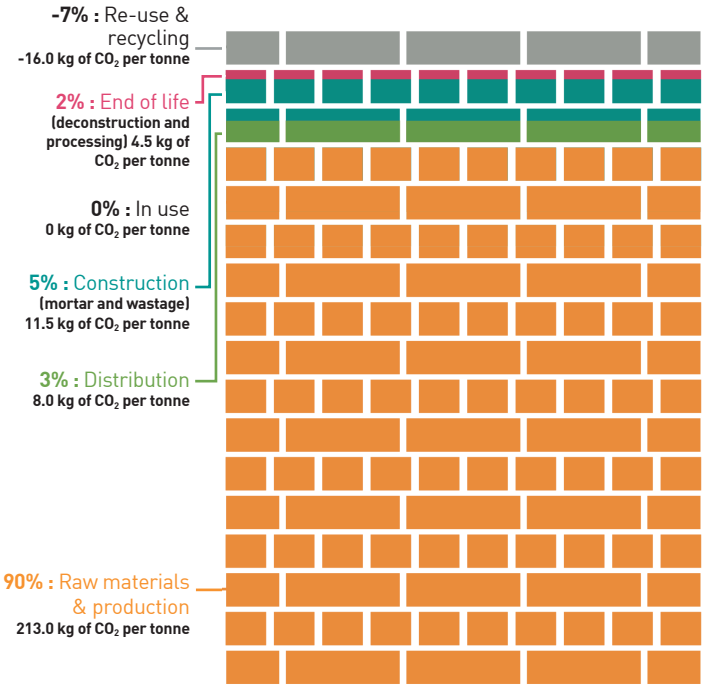
BES 6001 'Responsible Sourcing' certification covered all production for companies that reported.

6% of alternative materials (Materials from Alternative, Recycled and Secondary Sources - MARSS) are used in brick production, ensuring resource-efficient use of clays.

CARBON EMISSIONS OVER PRODUCT LIFECYCLE

28KG OF CO_2 PER INSTALLED M^2

based on half brick thick cavity wall.
220.973kg of CO_2 per tonne



THE CHALLENGE

Clay is the principal material used in brick manufacture. It provides their technical and durability performance and is responsibly and locally sourced by companies. Whilst a small quantity of alternatives (Materials from Alternative, Recycled and Secondary Sources - MARSS) are used, more research is needed for clays to be further substituted to ensure these characteristics are not compromised. The application of the circular economy to long service life products like clay bricks (which are components of the built environment) also needs more clarification as to-date activities have tended to focus on high-value, short life products.

WHERE WE ARE NOW

The clay brick Environmental Product Declaration (EPD) shows that over the product's whole lifecycle – also including construction / use / at end of life of a building - overall carbon emissions are low per year of service life and at end of life products can still be re-used and recycled. Technical and practical characteristics of clay bricks lend themselves to the design of buildings along circular economy principles, where their long service-life and adaptability are key features.

WHAT WE PLAN TO DO

+ Continue sector-specific circular economy modelling and production of case studies, to encourage decision-making based on whole-life product performance.
+ Continue reporting on the use of MARSS materials within the brick industry.

A CIRCULAR ECONOMY FOR THE BUILT ENVIRONMENT